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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,864	03/15/2004	Kunihiko Kodama	Q80466	1735
23373	7590	06/01/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			THORNTON, YVETTE C	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,864

Applicant(s)

KODAMA ET AL.

Examiner

Yvette C. Thornton

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-14 is/are rejected.
- 7) ☐ Claim(s) 2 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04162004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is written in reference to application number 10/799,864 filed on March 15, 2004 and published as US 2004/0185378 A1 on September 23, 2004.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The Information Disclosure Statement(s) filed on April 16, 2004 has/(have) been entered and fully considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

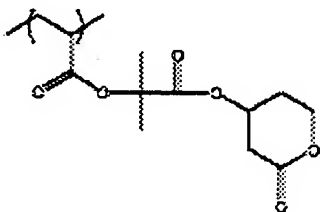
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

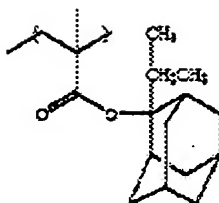
4. Claims 1, 3, 7-10 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kodama et al. (US 6,291,130 B1). Kodama teaches a positive photosensitive composition comprising (A) a compound, which generates an acid upon irradiation, (B) a resin having a group, which is decomposed by the action of an acid containing at least one structure represented by formula (I)-(III) (abstract).

Specifically Kodama exemplifies a resin P18 which comprises the following repeating units

Art Unit: 1752

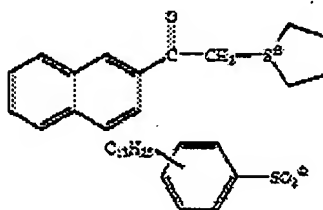


(a54) and



(b53). It is the examiner's position

that (a54) meets the limitations of a repeating unit having a lactone structure (cl. 8) and monomer (b53) meets the limitations of a polycyclic alicyclic hydrocarbon structure (cl. 7). Kodama further teaches the



use of a photoacid generator having the structure

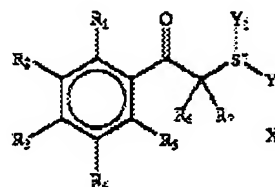
(PAG4-22) (c. 77, l. 40).

The said photoacid generator meets the limitations of claimed formula (I) wherein Y is naphthyl group; R₁ and R₂ are each independently hydrogen; and Y₁ and Y₂ together form a ring. Kodama further teaches that the taught invention may further contain a surface active agent (cl. 12), a photosensitizer, a dissolution accelerating compound (i.e., dissolution inhibitor), an organic basic compound (cl. 12), and the like (c. 84, l. 50-55). The said dissolution inhibitor is a low molecular compound containing at least one acid decomposable group represented by formula (XIII) or (XIV) and having a molecular weight of 3,000 or less (cl. 9-10; c. 88, l. 1-13). The preferred basic compound includes structures (A) to (E). Specific examples include substituted or unsubstituted pyraaminopyridine, triphenylimidazole and the like (cl. 13; c. 85, l. 28-c. 86, l. 54).

5. Claims 1 and 3-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Kodama et al. (US 2003/0224288 A1). Kodama teaches a stimulation sensitive composition comprising (A) an acid generator represented by formula (I) and (B) a resin which increases its solubility in an alkaline developing solution by the action of an acid (p. 0041-0052). The said resin preferably has a

Art Unit: 1752

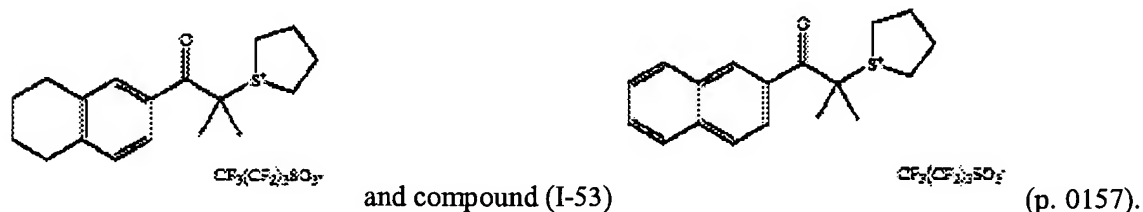
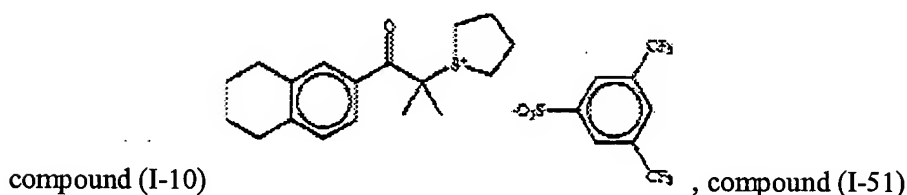
hydroxystyrene structural unit (p.0053), a monocyclic or polycyclic alicyclic hydrocarbon structure (p. 0054) or a fluorine atom (p. 0056). The said resin may further comprise a lactone structure (p. 0055). The taught composition further comprises a compound having a molecular weight of less than 3000, which is capable of decomposing by the action of an acid (p. 0058-0071). Kodama also teaches a negative type composition comprising the said components and a crosslinking agent (p. 0072-0084). The taught composition may also comprise a basic compound and/or surfactant having at least one group consisting of a fluorine atom and a silicon atom (p. 0085-0086). The compound represented by formula



(I) is preferably a compound represented by formula (1a)

wherein at least

two of R1 to R5 may be bonded to each other to form a ring (p. 0140-0142). Specific examples include



6. The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Allowable Subject Matter

7. Claims 2 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: review of the prior art failed to teach and/or suggest a compound of claimed formula (I) wherein Y is an adamantine structure.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- Kodama et al. (US 2004/0185373 A1) pertaining to a photosensitive composition
- Kodama et al. (US 2004/0072097 A1) pertaining to a photosensitive composition and acid generator.
- Kanna et al. (US 2003/0194650 A1) pertaining to a positive resist composition.
- Aoai et al. (US 5837420 A) pertaining to a positive working photosensitive composition

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 571-272-1336. The examiner can normally be reached on Monday-Thursday 8-6:30.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1752

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Yvette Clarke Thornton
Primary Examiner
Art Unit 1752

yct
May 26, 2005